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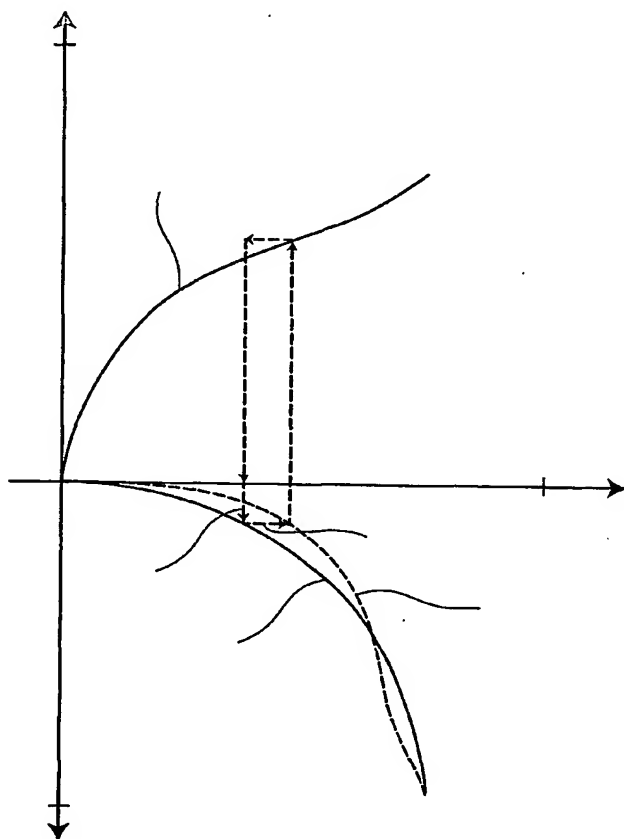
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- (71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **DALAL, Sandeep** [US/US]; P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US).
- (74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS N.V.**; c/o BRAM, Eric M., P.O.Box 3001, Briarcliff Manor, NY 10510-8001 (US).
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(54) Title: **LIQUID CRYSTAL DISPLAY GAMMA CORRECTION**



(57) Abstract: Gamma correcting procedures suitable for single-panel LCD/LCoS projectors are provided. Initially, linearly derived gamma values are used to produce gray scale color images (such as RED, GREEN, and BLUE). The brightness-voltage characteristics of the projector are determined by measurement and calculation. New gamma correction values are calculated and used to produce new gray scale color images, which are measured to determine their brightness-data responses. Errors with respect to a desired (power-law) response are used to calculate improved gamma correction values. The process of using newly calculated gamma correction values to produce gray scale color images, measuring the gray scale color images to find their brightness-data response, and using errors to obtain new gamma correction values repeats until the brightness-data characteristics of the display matches the desired response and until the display's grayscale tracking meets the desired performance levels. LCD projectors that incorporate the gamma correction values are also taught.

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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD,*

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